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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,206	06/22/2001	Dong Do Lee	P66761USO	6181

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EXAMINER

MOORE JR, MICHAEL J

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/857,206

Applicant(s)

LEE ET AL.

Examiner

Michael J. Moore, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 6 is/are rejected.
- 7) ☒ Claim(s) 3-5,7 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The abstract of the disclosure is objected to because of the following informalities: On line 1, the word "transmiting" should be "transmitting". On line 4, the word "a" is missing before the word "power". Lastly, on line 4, the word "for" is missing after the word "compensate". Correction is required. See MPEP § 608.01(b).

3. The disclosure is objected to because of the following informalities: On page 1, line 22, the word "forwad" should be "forward". On page 3, line 11, the word "a" is missing before the word "power". Lastly, on page 3, line 29, the word "a" is missing before the word "power".

Appropriate correction is required.

Claim Objections

4. Claims 1-6 and 8 are objected to because of the following informalities:

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Regarding claim 1, on line 1, the word "of" after word "apparatus" should be "for".

Regarding claim 2, on line 2, the word "a" is missing before word "pilot".

Regarding claim 3, on line 2, the word "the" before word "reliability" should be "a".

Regarding claim 4, on line 2, the word "the" before word "energy" should be "an".

Also, on line 3, the word "a" is missing before word "history".

Regarding claim 5, on line 3, the word "a" is missing before word "sign". On line 4, the word "a" is missing before word "TPC". On line 5, the word "the" before word "number" should be "a". Lastly, on line 6, the word "the" before word "same" should be "a".

Regarding claim 6, on line 5, the word "a" is missing after word "extracting".

Regarding claim 8, on line 4, the word "a" is missing after word "extracting".

Lastly, on line 6, the word "the" before word "reliability" should be "a".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims **1, 2, and 6** are rejected under 35 U.S.C. 102(e) as being anticipated by Takano (U.S. 5,924,043). Takano teaches all of the limitations of the listed claims with the reasoning that follows.

Regarding claim **1**, “an apparatus for controlling uplink transmitting power in a CDMA mobile station” is anticipated by the transmit power controller 190a of Figure 10 spoken of on column 13, line 24 – column 14, line 3. “A channel estimator detecting power magnitude and/or phase of a specific channel of received downlink signals” is anticipated by transmit power controller 190a (channel estimator) of Figure 10 that receives a plurality of TPC bits (power magnitude information detection) from base station 101 as spoken of on column 13, lines 46-50. “A speed estimator estimating a moving speed of the mobile station based on the detected power magnitude and/or phase” is anticipated by speed detector 192 of Figure 10 that detects mobile unit speed as spoken of on column 13, lines 33-37. “A step adjuster changing the size of a power control step based on the estimated moving speed” is anticipated by step selector 116 of Figure 10 that selects an optimal step size based upon the detected speed as spoken of on column 13, lines 33-37. “A demodulator extracting a power control command contained in the received downlink signals” is anticipated by accumulator 114 of Figure 10 that stores TPC bits (power control command) received from base station 101 as spoken of on column 13, lines 46-50. Lastly, “a power level controller adjusting power level of transmitting signals by the changed power control step size according to the extracted power control command” is anticipated by transmit power controller 190a of

Figure 10 that uses speed detector 192 as well as step selector 116 to adjust transmitting power level as spoken of on column 13, lines 28-58.

Regarding claim 2, "wherein the specific channel is a pilot channel" is anticipated by the TPC bit transmission over a traffic channel (pilot channel) spoken of on column 2, lines 18-23.

Regarding claim 6, "a method of controlling uplink transmitting power in a CDMA communication system" is anticipated by the transmission power adjusting method performed by transmit power controller 190a of Figure 10 spoken of on column 13, lines 25-58. "Receiving downlink signals" as well as "detecting power magnitude and/or phase of a specific channel of the received downlink signals" is anticipated by the reception of a plurality of TPC bits (power magnitude information detection) from base station 101 as spoken of on column 13, lines 46-50. "Extracting a power control command from the received downlink signals" is anticipated by accumulator 114 of Figure 10 that stores TPC bits (power control command) received from base station 101 as spoken of on column 13, lines 46-50. "Estimating a moving speed of a mobile station based on the detected power magnitude and/or phase" is anticipated by speed detector 192 of Figure 10 that detects mobile unit speed as spoken of on column 13, lines 33-37. "Changing a power control step size based on the estimated moving speed" is anticipated by step selector 116 of Figure 10 that selects an optimal step size based upon the detected speed as spoken of on column 13, lines 33-37. Lastly, "increasing or decreasing power level of transmitting signals by the changed power control step size according to the extracted power control command" is anticipated by transmit power

controller 190a of Figure 10 that uses speed detector 192 as well as step selector 116 to adjust transmitting power level as spoken of on column 13, lines 28-58.

Allowable Subject Matter

7. Claim 8 is allowable over the prior art of record.
8. Claims 3-5 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
9. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 3, the prior art of record teaches the apparatus of claim 1. The prior art of record fails to teach a measuring means for measuring a reliability of an extracted power control command. The prior art of record also fails to teach deriving a weighting factor from the measured reliability, multiplying this weighting factor by the changed power control step size, and then incrementing or decrementing the power level of the transmitting signals by the multiplied step size.

Regarding claims 4 and 5, these claims are further limiting to claim 3 and are thus also allowable over the prior art of record.

Regarding claim 7, the prior art of record teaches the method of claim 6. The prior art of record fails to teach changing the power control step size every 1.25 milliseconds.

Regarding claim 8, the prior art of record teaches a method of controlling uplink transmitting power in a CDMA communication system where downlink signals are

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received and power control commands are extracted from the received downlink signals. The prior art of record fails to teach calculating a reliability of an extracted power control command. The prior art of record also fails to teach deriving a weighting factor from the calculated reliability and multiplying a determined power control step size by this factor. The prior art of record also fails to teach increasing or decreasing a power level of transmitting signals by the multiplied power control step size in accordance with the extracted power control command.

Conclusion

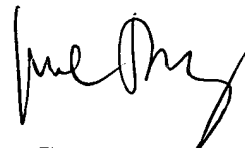
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kaneda et al. (U.S. 6,343,218), Soliman (U.S. 6,490,460), Kubo et al. (U.S. 2003/0003914), and Kubo et al. (U.S. 6,711,384) are all references that contain material pertinent to this application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Moore, Jr. whose telephone number is (571) 272-3168. The examiner can normally be reached on Monday-Friday (8:30am - 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached at (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mjm MM



FRANK DUONG
PRIMARY EXAMINER

Michael J. Moore, Jr.
Examiner
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